

Chapter 6 - Worksheet 2

Period: _____ Date: _____

6.1: Solving Systems by Graphing

Graph each system of equations. Then determine whether the system has **no solution**, **one solution**, or **infinitely many solutions**. If the system has one solution, name it: (x, y)

1. $y = x + 3$ $m = 1$ $b = 3$ 2.

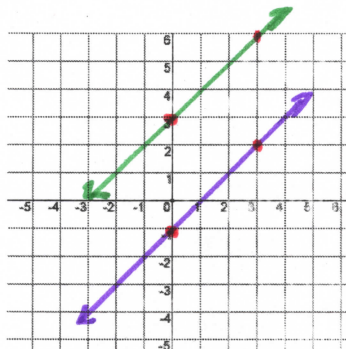
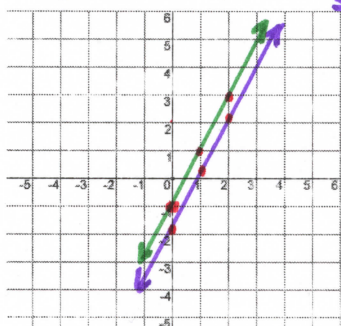
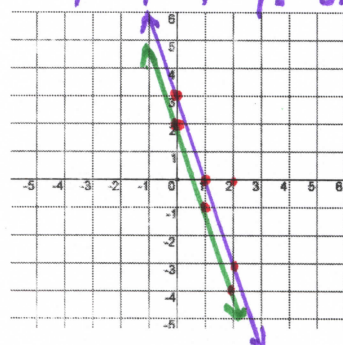
$y = 2x - 1$ $m = 2$ $b = -1$ 3.

$3x + y = 2$ $y = -3x + 2$ $m = -3$ $b = 2$

$y = x - 1$ $m = 1$ $b = -1$

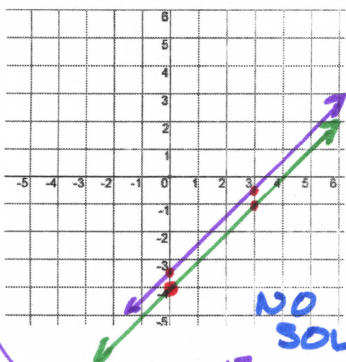
$\frac{3y}{3} = \frac{6x - 5}{3}$ $y = 2x - \frac{5}{3}$ $m = 2$ $b = -\frac{5}{3}$

$\frac{4y}{4} = \frac{12 - 12x}{4}$ $y = -3x + 3$ $m = -3$ $b = 3$

NO
SOLUTIONNO
SOLUTIONNO
SOLUTION

4. $2x - 2y = 5$

$y = x - 4$ $m = 1$ $b = -4$

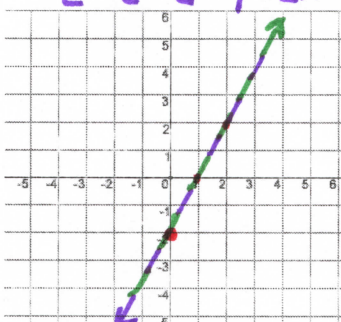
NO
SOLUTION

$$\begin{array}{r} 2x - 2y = 5 \\ -2x \quad \quad -2x \\ \hline -2y = -2x + 5 \\ \div 2 \quad \div 2 \quad \div 2 \\ y = x - \frac{5}{2} \end{array}$$

$m = 1$
 $b = -\frac{5}{2}$

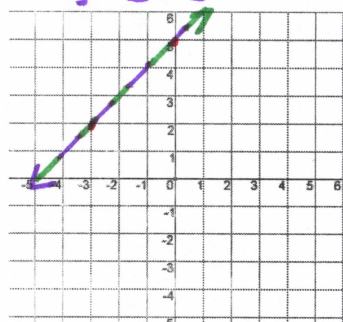
5. $y = 2x - 2$ $m = 2$ $b = -2$

$\frac{2y}{2} = \frac{4x - 4}{2}$ $y = 2x - 2$ $m = 2$ $b = -2$

INFINITE
SOLUTIONS

6. $y - x = 5$ $y = x + 5$ $m = 1$ $b = 5$

$\frac{3y}{3} = \frac{3x + 15}{3}$ $y = x + 5$ $m = 1$ $b = 5$

INFINITE
SOLUTIONS